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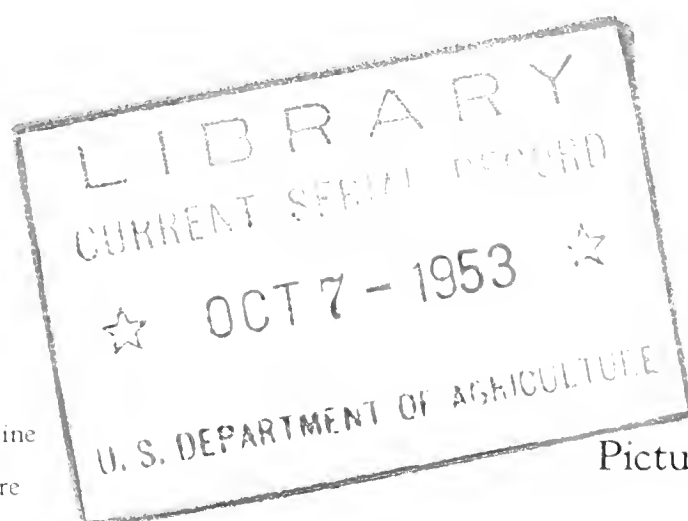
POTATO LEAFHOPPER



MARY F. BENSON

a, Adult leafhopper; *b*, nymphs; *c*, potato leaflets, showing upcurled brown tips and margins, known as hopperburn, caused by the feeding of leafhoppers. (*a* and *b* about 14 times natural size; *c* about $\frac{3}{4}$ natural size.)

(See other side for life history and control)



Bureau of Entomology and Plant Quarantine
Agricultural Research Administration
United States Department of Agriculture

Picture Sheet No. 8

POTATO LEAFHOPPER

(*Empoasca fabae* (Harr.))

Injury and Life History

The potato leafhopper is an injurious pest of potato and beans in the Eastern States. It also attacks many other plants. Both the young forms, known as nymphs, and the adults feed upon the under surface of the leaves by sucking the plant juices. The adults fly when disturbed and the tiny nymphs scamper for cover, traveling sidewise. Besides sucking the plant juices, this leafhopper transmits to the plant a substance that causes a disease condition known as hopper-burn. The first symptom of this disease is a triangular brown spot at the tips of the leaflets. Later the entire margins may curl upward and turn brown as though scorched. Badly affected plants die early and the yield of potatoes is reduced.

In Florida and other Gulf States the leafhopper breeds throughout the year. In the North the adults appear in April or May. Since they have never been found there in the winter, they probably migrate from the South. Early in June they move in large numbers to potato fields and deposit eggs in the tissue of the plants. In about a week these eggs hatch into wingless nymphs. The nymphs pass through five stages and become winged adults in 10 to 14 days. They begin laying eggs 5 or 6 days later. The period from egg to adult is about 1 month.

Control

Dust the foliage thoroughly with a 3-percent DDT dust.

If you prefer a spray to a dust, use 2 level tablespoonfuls of 50-percent DDT wettable powder or 2 level teaspoonfuls of 25-percent DDT emulsion concentrate per gallon of water. Apply with a good sprayer that throws a fine mist. To make 100 gallons of spray use either 2 pounds of the 50-percent wettable powder or 2 pints of the 25-percent DDT emulsion concentrate. If spray is to be used for disease control, add either of these DDT preparations to the fungicidal spray rather than to water, and apply at once.

Begin spraying or dusting when the insects first appear and repeat the treatment as often as necessary.

CAUTION.—Insecticides are poisonous and should be handled with care. Store in a dry place where children and animals will not have access to them.

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